

**Claims Objections:**

Claims 37-56 were objected to on the basis of informalities. These claims have been amended to remove the redundancy with regard to the weight of the amino acid component.

**Claim Rejections - 35 USC 112**

Claims 41, 44-46, 51 and 54-56 stand rejected under 35 USC 112 as unpatentable for failing to comply with the written description requirement.

Claims 41 and 51 drawn to analogs of hydroxy and keto analogs have been CURRENTLY AMENDED to limit the hydroxy and keto analogs claimed to those specified.

Examiner has objected to “protein hydrolysates” as only hydrolysates of egg and whey are specifically mentioned. However in the next paragraph, a number of proteins are given and since even a beginning student in organic chemistry or biochemistry, much less one skilled in the art, knows how to produce a hydrolysis product from a protein, one skilled in the art would surely recognize that the broad description of protein hydrolysates includes all proteins that might be hydrolyzed, by whatever means are suitable. Those hydrolysates which were undesirable in taste are illustrated by, but not limited to, egg and whey [see paragraphs 0019 and 0041].

**Claim rejections - 35 USC § 102 - Anticipation (Previous Rejection)**

Claims 37-40, 43-50 and 53-56 stand rejected under 35 USC 102 as unpatentable over Ojima et al. (US 7,029,717).

Examiner cites Ojima et al and taste masking in the 1:5 or 16.6% sucralose to amino acid as one of an example of taste masking by sucralose of the amino acid, however, the use of amino acids to where taste is examined are in a ratio of 10 to 1, sucralose to amino acid (Example 17), 20 to 1, sucralose to amino acid (Example 34) and 20 to 1, sucralose to amino acid (Example 35). Examiner has used Example 45 which does not evaluate taste masking but which examines only discoloration. No indication of a relationship between discoloration and a bitter metallic taste is indicated. Examiner has shown no anticipation of the “taste masking” effect of sucralose at the levels disclosed and claimed by Applicant. Ojima et al. has used levels of sucralose far in excess of those claimed by Applicant.

Applicant further argues that Ojima et al. uses 1 part protein hydrolysate and 5 parts sucralose, in keeping with all other Examples and ratios used rather than 1 part sucralose and 5 parts protein hydrolysate (the 16.6% level calculated by Examiner) in examining discoloration of sucralose. Otherwise, Ojima et al would be looking at the discoloration of the protein hydrolysate (the major component in Examiner's calculation) rather than the discoloration of the sucralose (the major component in the 1 to 5, protein hydrolysate: sucralose).

Applicant's usage of sucralose is a minor, not a major component of the amino acid composition present. The sucralose level is further limited by claims to 15% of the amino acid weight as opposed to the 91 to 95% level disclosed by Ojima et al. in taste masking evaluation and the 83% level in protein hydrolysate discoloration experiments by Ojima et al. Again, Applicant that such excesses of sucralose and its sweetness would dwarf the taste of a minor component, the amino acids in Examples 17, 34 and 35 and in no way mirror the completely unobvious use by Applicant as a taste masking agent at the levels claimed.

Applicant has clearly pointed out that the compositions are vastly different in composition of that of Ojima et al. and are not as Examiner claims, "substantially the same as the compositions of the instant claims."

Examiner has incorrectly stated, "Although the reference does not disclose the sucralose as a taste masker, it is used as a sweetener and therefore will mask bitter taste because it sweetens the compositions no matter what the other components are in it." This statement by Examiner is not true as shown in Applicant's Table 1, where neither sucralose, aspartame, sugar or saccharin masked the taste of the amino acid, arginine. Sugar did not mask the taste of arginine, even when used at an amount equal to that of the amino acid.

As noted by Liu et al. (US 6,773,730), the use of a sweetener does not mask bitterness as they state their composition includes "one or more flavors, preferably one or more bitterness masking agents, one or more sugars and/or one or more high-intensity sweeteners." (Col 7, lines 10-12)

#### **Claim rejections - 35 USC § 102 - Anticipation (New Rejection)**

Claims 44-46 and 54-56 are rejected under 35 U.S.C. 102 (e) as being anticipated by Liu et al. (US 6,773,730). Examiner has cited col 2, lines 16-18 where an enzymatically hydrolyzed

zein comprises approximately 20% to 65% of the chewing gum base. However, at the cited col. 6, lines 62 to col. 7, line 8, a limitation (see col. 7, lines 3-8) of the zein gum of 0.5 to 2% (wt) is given with high-intensity sweeteners of 0.5-2.0%, thus, the ratio of hydrolyzed zein ranges from 1 to 4 to 4 to 1, but does not fall within or near the level Applicant has claimed. It is further noted that Lin et al. were unaware of the masking ability of sucralose and teach away from its use as they point out at col 7, lines 9-10, that the “preferred bitterness masking agent is malt” at a level of 5-50%, although as Examiner points out Liu et al. clearly knew that sucralose was available as a sweetener, thus teaching away from Applicant’s claimed invention of taste masking.

Once again, Applicant has shown that Liu does not anticipate the level of use claimed by Applicant and requests reversal of the rejection by Examiner.

#### **Claim rejections - 35 USC § 103 - Obviousness (Previous Rejection)**

Claims 42 and 52 are rejected under 35 U.S.C 103 (a) as being unpatentable over Ojima et al. (US 7,029,717) in view of Newsholme et al. (US 5,639,731).

Examiner has cited Ojima et al and taste masking in the 1:5 or 16.6% sucralose to amino acid as in those examples of taste masking the sucralose to amino acid ratio is 10 to 1 (Example 17), 20 to 1 (Example 34) and 20 to 1 (Example 35). Applicant again points out that Example 45 **does not** evaluate taste masking but examines only discoloration of the sucralose. No indication of a relationship between discoloration and a bitter metallic taste is indicated. Ojima et al. do not use sucralose as a taste masking agent at the levels disclosed and claimed by Applicant. Ojima et al. consistently use a 20:1 to 10:1 ratio of sucralose to the amino acid component.

Applicant’s limits their claims to 15% of the amino acid weight as opposed to the 91 to 95% level disclosed by Ojima et al. in taste masking evaluation and the 83% level in protein hydrolysate discoloration experiments by Ojima et al. When the equivalent of 1 gram of amino acid (methionine in Ojima et al.’s Example 17) is placed with a sweetener equivalent to 3000 g of sugar, Applicant agrees with examiner that no bitter taste would be noted, simply because of the dilution effect. However, Applicant has shown that a 10 to 20 to 1 ratio, where it would be obvious to anyone, skilled or not, that only the very bitterest principles would not be diluted out beyond taste, **is not** equivalent to Applicant’s claims which are completely unobvious as shown

by Liu et al.'s (see previous comments on Anticipation Rejection) inclusion of a bitter masking agent of malt for a chewing gum.

Applicant has clearly pointed out that the compositions are vastly different in composition of that of Ojima et al. and are not as Examiner claims, "substantially the same as the compositions of the instant claims."

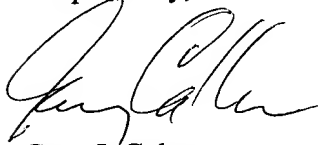
## **CONCLUSION**

For all the reasons given above, Applicant respectfully submits that the specification and claims are now in proper form, and that the claims all define patentably over the prior art. Therefore they submit that this application is now in full condition for allowance, which action Applicants respectfully solicit.

## **Conditional Request for Constructive Assistance**

Applicants have amended the claims of this application so that they are proper, definite and define novel compositions and methods which are unobvious. If, for any reason this application is not believed to be full condition for allowance, applicants respectfully request the constructive assistance and suggestions of the Examiner pursuant to M.P.E.P. § 2173.02 and § 707.07(j) in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings

Respectfully,



Gary J. Calton

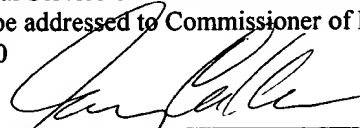
Applicant Pro Se

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